

# CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM



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A joint bulletin of the Caribbean Agricultural Research and Development Institute (CARDI) and the Caribbean Institute for Meteorology and Hydrology (CIMH).

## KEY MESSAGES

Floods (including flash flood), landslide, rock-fall and soil erosion possible across Belize and the Caribbean Islands until the end of December and, until early February, in the coastal Guianas.

Long-term drought is evolving in Belize and short-term drought is evolving in southeast Belize, Cayman Islands, Cuba, western Jamaica and northwest Puerto Rico.

Frequent short dry spells are expected from Hispaniola westward, potentially affecting rain-fed crops.

Seasonably cool temperatures and a low chance of particularly dry conditions will lead to the relatively slow depletion of water resources and to a slow rate of increase in fire potential.

## OCTOBER IN REVIEW

Conditions throughout the eastern Caribbean were predominantly normal to below normal during the month of October. Trinidad normal to extremely wet southwest to northeast; Tobago exceptionally wet to normal; Grenada, Saint Lucia, St Croix and St Maarten normal; Barbados slight to extremely dry southeast to northwest; St Vincent and St Kitts predominantly normal ranging to slightly dry; Martinique and Guadeloupe predominantly normal ranging to moderately dry; Dominica moderately wet to slightly dry; Antigua predominantly extremely dry ranging to severely dry in the extreme southwest; Anguilla predominantly normal ranging to slightly wet in the northeast and St Thomas slightly dry. In the Guianas conditions ranged from severely dry to exceptionally wet. Aruba and Curacao were normal.

Puerto Rico ranged from moderately dry in the west to normal in the east. Hispaniola ranged from normal in Haiti to exceptionally dry in central areas of the Dominican Republic. Jamaica was predominantly normal ranging to moderately dry in south-western areas. Grand Cayman was normal. Cuba was mostly normal with slight to moderately dry conditions in the west and slightly dry areas in the extreme east.

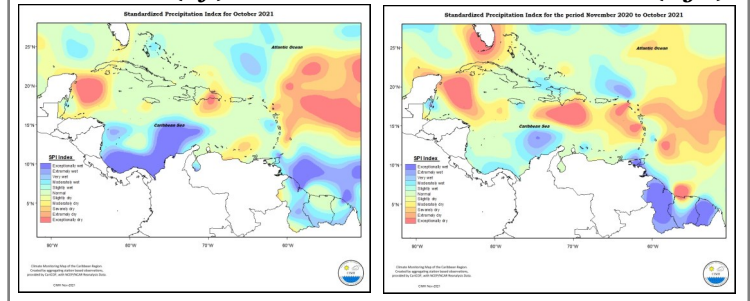
## ABOUT CarisAM

The Caribbean Society for Agricultural Meteorology (CarisAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises, and more. Visit us at: [www.carisam.cimh.edu.bb](http://www.carisam.cimh.edu.bb)

Northern Bahamas ranged from moderately wet to normal and Belize ranged from moderately dry in south central areas to moderately wet in the extreme northeast.

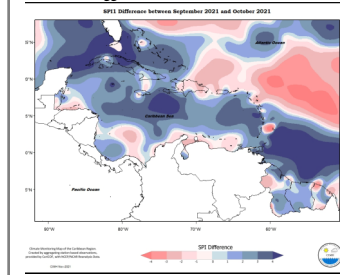
A review of the 12-month period (November 2020 to October 2021), showed predominantly normal to extremely dry conditions across most of the region.

### SEP 2021 SPI (left) and 12-month SPI NOV 2020—OCT 2021 (right)



The month of October has been predominantly wetter as compared to September across most of the region.

### SPI Difference (SEP and OCT)



Read more at <https://rcc.cimh.edu.bb/spi-monitor/>

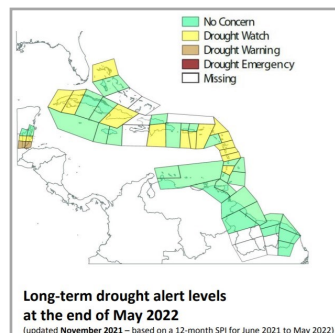
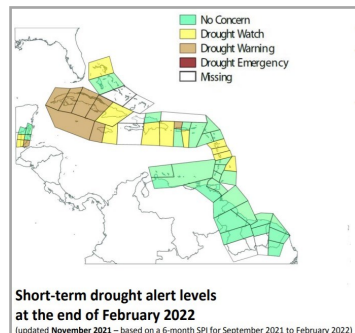
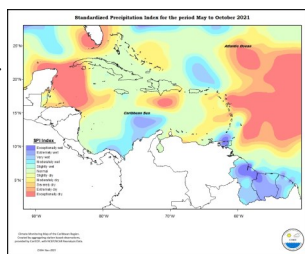
## AGRI-NEWS

**Guyana:** FAO donates \$3M data collection equipment to GRDB aimed at strengthening monitoring systems. Read more <https://agriculture.gov.gy/2021/11/09/fao-donates-3m-data-collection-equipment-to-grdb-aimed-at-strengthening-monitoring-systems/>

## REGIONAL OUTLOOKS

### DROUGHT

Moderate (or worse) short-term drought has developed in Antigua & Barbuda, northernmost & southeastern portions of the Bahamas, southeast Barbados, far north & southeast Belize, Western and parts of Eastern Cuba, east Dominican Republic, east Guadeloupe, Martinique, much of Puerto Rico, and St. Barth's. Moderate (or worse) long-term drought has developed in northwestern parts of The Bahamas, south Belize, Western Cuba, southwest Dominica, along the south coast of the Dominican Republic, throughout the Leeward Islands, in Martinique, St. Barth's, St. Croix, and St. Vincent.



By the end of February 2022, impacts from short-term drought may be of a concern particularly in southeast Belize, Cayman Islands, most of Cuba, western Jamaica, and northwest Puerto Rico. Long-term drought that can impact large reservoirs, large rivers or groundwater would likely present a challenge in farming across Belize, and possibly across northernmost Bahamas, central Belize, eastern and western Cuba, Dominica, southern Dominican Republic, The Leeward Islands (except St. Kitts), Martinique, southern Puerto Rico, and St. Vincent.

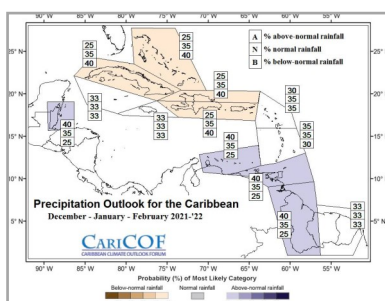
**Interests across the region should continue to monitor their water status.**

### RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (DECEMBER 2021—FEBRUARY 2022)

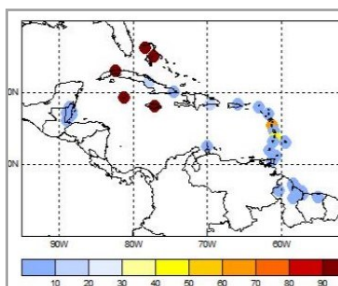
Rainfall totals (from December through February) could possibly be at least as low as usual across The Bahamas, Cuba, Hispaniola and the U.S. Caribbean Territories but as high as usual in the ABC Islands, Guyana, Trinidad and Tobago and Belize.

Flash flood, long-term flooding, land slide, rock fall and widespread soil erosion potential remain a concern across the Guianas, due to very wet spells and extreme wet spells. Wild fire potential could slowly increase by the end of February 2022.

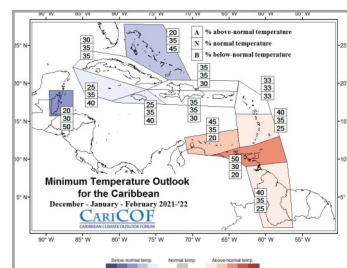
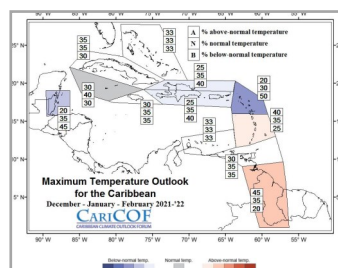
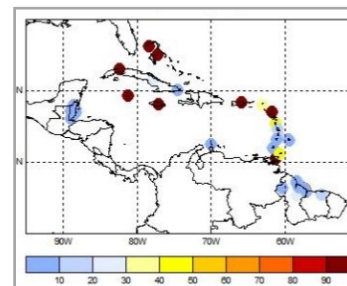
The occurrence of at least three 7-day dry spells and at least one 15-day dry spell is highly favourable across the northwestern portion of The Bahamas, northwestern Cuba, Cayman Islands and Jamaica. The occurrence of at least one 15-day dry spell is also highly favourable across Puerto Rico, Antigua and Trinidad.



Probability of at least THREE 7-day dry spells in DJF



Probability of at least ONE 15-day dry spell in DJF



Day-time (maximum) temperatures and night-time (minimum) temperatures are likely to be comfortable despite the night-time being the usual or slightly warmer south of Guadeloupe and the daytime usual or slightly warmer in Barbados, Guyana and the Windward Islands. Some cold nights are expected, particularly in The Bahamas, Belize and elsewhere at higher elevations.

Visit <http://rcc.cimh.edu.bb/climate-outlooks/> to access the latest climate outlooks.

### CLIMATE-SMART ADVISORIES

**Alternate sources of irrigation may be required** for territories (Hispaniola westward) being affected by short dry spells.

**Consider on-farm drought management plans** in the event of a likely occurrence of dry spells and short-term drought conditions. These may include:

- ◆ Identifying alternate water sources for on-farm activities; employing water management techniques such as irrigation scheduling and mulching (in the event of dry spells); installing water-saving devices.
- ◆ Selecting drought tolerant crops and varieties and planting them with careful thought of the availability of water resources.

**With the possibility of flood producing rains**, particularly in the Guianas:

- ◆ *Maintain drains around crop beds and/or plant crops on raised beds; House animals on high ground and/or on raised pens; Store fertilizer away from moisture and water sources.*
- ◆ Agricultural pests and diseases may increase in extreme wet conditions. Monitor and employ recommended treatment as necessary.

*Please also keep updated and take into consideration your local weather and climate advisories.*

#### Disclaimer

The information contained herein is provided with the understanding that the CARDI, and the CIMH make no warranties, either expressed or implied concerning the accuracy, completeness, reliability or suitability of said information. This bulletin provides a broad overview of climate conditions up to 6 months in advance. It is recommended that stakeholders should use this information in combination with nearer term weather forecasts to guide operational decision making. The bulletin may be freely used by the public with appropriate acknowledgement of its source but shall not be modified in content and then presented as original material.

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